

DOCUMENT RESUME

ED 156 069

HE 010 205

AUTHOR Doerper, Victoria; And Others
TITLE The Academic Environment. Research Report No. 5.
INSTITUTION California Univ., Davis.
PUB DATE Apr 75
NOTE 22p.

EDRS PRICE MF-\$0.83 HC-\$1.67 Plus Postage.
DESCRIPTORS Class Activities; *College Environment; College Majors; *Educational Environment; Grades (Scholastic); Grading; Higher Education; Institutional Research; Research Projects; *School Surveys; *State Universities; *Student Opinion; Student Participation; Student Teacher Relationship

IDENTIFIERS *University of California Davis

ABSTRACT

Information obtained from the 1973 Davis Student Survey regarding the perception of students at the University of California at Davis concerning the academic side of campus life is presented. The information is summarized and discussed in five sections: class activity, student faculty relations, academic preparation, learning support services, and grades and grading procedures. The appendix contains a list of majors by general area.
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THE ACADEMIC ENVIRONMENT

research report no.5
office for student affairs
research and evaluation
university of california, davis

AE 010 205

THE ACADEMIC ENVIRONMENT

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Research Report #5
Office for Student Affairs
Research & Evaluation
University of California, Davis

April, 1975

FOREWORD

This is the third of three reports about the perceptions of Davis students based on information obtained from the 1973 Davis Student Survey. Undergraduate Student Perceptions and Graduate/Professional Student Perceptions provided a general overview of student life at Davis. This report focuses more directly on student perceptions relating to the academic side of campus life.

I wish to acknowledge the valuable assistance provided by Norman Lynn Bailiff and Robert Nixon Gaines. As graduate students and staff members in this office, they were chiefly responsible for the collection and statistical analysis of data necessary to the preparation of these reports.

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INTRODUCTION

Providing an academic environment conducive to learning is a major function of the University. The general campus environment provides many extracurricular activities which compete for a student's attention and time, but the area of greatest student concern, if not interest, is the area of academics.

To ensure that students receive adequate academic training, the undergraduate and graduate curriculums detail the general University requirements, as well as the specialized major requirements, which a student must fulfill in order to obtain a degree. In the process of fulfilling these requirements, students engage in the day-to-day activities which together constitute the academic environment: attending classes, preparing assignments, studying course material, taking exams, and receiving grades. Although procedures may vary from class to class, and from year to year, students develop general attitudes and perceptions about the academic environment in which they must work and, ultimately, succeed.

In its first year of operation, the Department of Student Affairs Research and Evaluation developed a questionnaire, the 1973 Davis Student Survey, which was designed to collect, among other things, information about student perceptions of the academic environment at UCD. This report summarizes that information and discusses it in five sections: 1) class activity, 2) student-faculty relations, 3) academic preparation, 4) learning support services, and 5) grades and grading procedures.

METHODOLOGY

A team of student interns developed the 1973 Davis Student Survey during the 1972-73 academic year. Employed by the Office for Student Affairs Research and Evaluation, they worked closely with a consultant from Educational Testing Service, Richard E. Peterson, in devising and administering the instrument. The Survey consisted of four distinct forms, each eight pages in length and comparable in appearance and format. All the questions were multiple choice, with spaces provided for additional written comments. With the exception of the cover sheet, the demographic questions (p. 2 of each form) and the questions on peer advising and counseling programs (pp. 6 and 7), each form contained unique items.

In order to obtain a maximum amount of data at a minimum of inconvenience to the students being sampled, a matrix sampling procedure for distributing the Survey was employed. In the third week of May, each form was mailed to a different computer-selected random sampling of 1,000 students from the total student population. For the purposes of the Survey, the population was defined as every student who had registered for the spring quarter, prior to the first day of instruction. This sampling included individuals enrolled in the three undergraduate colleges, the graduate and professional schools, and the Division of Extended Learning. One week after the surveys were sent out, the students in the sample were sent postcards reminding them to return the completed questionnaire.

A total of 1,875 questionnaires were returned out of the 4,000 originally sent out. The return rate for the entire Survey was 47 percent, with the return rate for individual forms ranging from a low of 44 percent to a high of

49 percent. This low rate of return, while not affecting the validity of the obtained results, does not enable one to conclusively apply these results to the total student population.

CLASS ACTIVITY

The class--whether lecture, discussion section, or laboratory--is one of the most important elements in a student's academic life. Under the best circumstances, class activity may enhance the learning process, promote intellectual growth, and offer an arena for the exchange of ideas and information. Under less than optimum conditions, class activity may prove to be a boring and frustrating experience for students.

Several Survey questions were designed to obtain student views of class activity. Students were questioned about personal satisfaction derived from classes, general course content, and the opportunity for application of classroom learning to practical situations. In addition to this, students were asked about their satisfaction with class size, freedom in selection of classes and opportunities for independent study.

Students were asked to indicate what fraction of their classes they found to be enjoyable, stimulating and demanding. Fifty-six percent of the respondents found at least one-half of their classes to be enjoyable, and an identical percentage reported that at least one-half of their classes were intellectually stimulating. Seventy-two percent of all respondents noted that at least one-half of their classes were intellectually demanding. These ratings are not mutually exclusive; quite probably many students rated a course as "intellectually demanding" which they also considered to be enjoyable and intellectually stimulating.

When questioned about the content of their classes, 76 percent of the undergraduates expressed satisfaction with the material presented in the classroom. Although generally satisfied, some students in particular fields showed more satisfaction than others. Over eighty percent of all students majoring in the Biological Sciences (see Appendix I for list of majors), Physical Sciences and Math, and Letters were satisfied with the content of their classes. Among graduate students, 76 percent reported satisfaction with the general content of their classes.

Students were less pleased, however, with the opportunities for the practical application of what they learned in the classroom. Sixty percent of all undergraduates reported dissatisfaction with this aspect of their classroom experience, although over 50 percent of the students in Applied Economics and Behavioral Sciences, Letters, and Physical Sciences and Math indicated satisfaction with the opportunity to apply what they had learned in class. Two thirds of the graduate and professional students reported that they were very satisfied with their opportunities to apply what they learned in class.

Another problem area noted by respondents to the Survey was that of class size. Undergraduates were particularly disappointed with the size of their classes, with 58 percent of the total population reporting varying degrees of dissatisfaction. Among the various majors surveyed, students in the Biological Sciences were the least pleased, with only 35 percent reporting satisfaction. The average size of an undergraduate Biological Sciences class in 1973 was 39 students. Engineering majors were the only group in which a majority of students (64%) indicated satisfaction with class size. The average size of an undergraduate Engineering class was 26 students.

Students were quite satisfied with two other areas of their class experience. Eighty-one percent of all undergraduates reported satisfaction with the amount of freedom allowed students in choosing their classes. Graduate and professional students were the most satisfied group, with 86 percent of them indicating satisfaction. When questioned about the opportunities for independent study, a majority of the undergraduates reported satisfaction. These responses indicate that as a student progresses from freshman to senior, the degree of satisfaction with the opportunity for independent study increases (frosh--54%, soph.--58%, jr.--60%, sr.--78%). One reason for this may be that opportunities for independent study become more available as students complete their general education requirements and become more interested in an in-depth understanding of a particular area. Graduate and professional students reported a high degree of satisfaction with these opportunities.

STUDENT-FACULTY RELATIONS

Students' views of their class activity, as well as many other areas of the academic environment, may be greatly influenced by the experiences which they have had with instructors. The importance of the instructor in the class is evident: he or she may generate enthusiasm for the subject, encourage original thinking, and help students to realize that learning is, indeed, an enjoyable experience. Through the Student Viewpoint and by word of mouth, students discover which specific instructors are worth rearranging schedules for, and which are to be avoided. In several Survey questions we attempted to discover, very generally, the degree of student satisfaction with instructors at UCD. Students were asked to indicate their satisfaction with faculty contact

and with the quality of classes taught by teaching assistants. In addition, they were asked if their instructors showed more interest in research projects than in teaching.

Overall, student responses to questions on student-faculty relations were quite favorable. Over two-thirds of all the respondents registered satisfaction with their faculty contacts. Graduate students in particular expressed high satisfaction (83 percent). In a related question, students were asked to note whether "getting to know the instructor personally" was a serious problem. Less than one-half of the undergraduates and less than one-fourth of the graduate students ranked this as a serious problem.

Respondents were asked to indicate whether they thought "the quality of classes taught by teaching assistants" was a problem. Thirty-one percent of the undergraduate respondents mentioned the quality of T.A.'s classes as a serious problem. A much smaller percentage of graduate students (8%) listed this as a serious problem, possibly because graduate students are not usually taught by teaching assistants but are hired in this capacity to instruct undergraduates.

Finally, students were asked if instructors being more interested in research than in teaching was seen to be a problem. Over 70 percent of the respondents did not find this to be a serious problem.

ACADEMIC PREPARATION

Students with a full course load usually spend from 12 to 20 hours per week in the classroom. A considerable amount of student time not accounted for by class attendance is spent in preparing course assignments and in studying course material. Several Survey questions were designed to gather information about students' academic preparation, including satisfaction with the availability of good places to study and the amount of time students spent studying outside of the classroom.

Essential to any student's academic preparation is a convenient and agreeable place to study and prepare out-of-class assignments. Respondents were asked to indicate their satisfaction with the availability of good places to study on campus. Over two-thirds of the undergraduates and over three-fourths of the graduate students noted their satisfaction with the study facilities. This degree of satisfaction may be related to the general campus atmosphere, which was rated highly by both undergraduate and graduate students as their reason for choosing to attend the Davis campus.

The amount of time that students devote to out-of-class study may be determined by a number of factors, including course load, major, and degree expectations. Respondents were asked to indicate the number of hours they spent, per week, studying outside of the classroom. Of the undergraduate respondents, 30 percent noted that they spent ten hours or less studying per week, 34 percent spent 11-20 hours per week, and 36 percent spent more than 20 hours per week engaged in this activity. Twenty-two percent of the graduate students studied less than 10 hours per week, 31 percent studied 11-20 hours per week, and almost half (46%) studied over 20 hours per week. The fact that a higher percentage of graduate students devote more than 20 hours per week to studying is predictable, since the graduate program is designed to be more rigorous than the undergraduate one.

Students' weekly study time varies considerably from one major area to another. For example, half of the students enrolled in the Agricultural Sciences and in the Biological Sciences report that they spend more than 20 hours per week studying; similarly, close to half (42%) of those enrolled in the Physical Sciences and Math note that they study more than 20 hours per week. On

the other hand, only 20 percent of those enrolled in Letters and 27 percent of those in Resource Sciences report that they devote more than 20 hours per week to this activity.

Another variation in the time spent studying per week occurs when degree expectations are considered. More than half of the students who expect to obtain a doctorate in a health field spent more than 20 hours per week studying. Almost half of those students who are planning to obtain a doctorate in an academic field (49%), a master's degree in a health field (47%), or a law degree (42%), reported that they spent more than 20 hours per week studying. In comparison, one-third or less of those students planning to obtain a bachelor's degree (33%), master's degree in an academic field (30%), or a teaching credential (21%) noted that they spent more than 20 hours per week studying.

It is often thought that the amount of time which individuals spend studying affects their G.P.A. Survey findings reveal little variation in the study time reported by students with G.P.A.'s in the upper 25 percent of their class and by those with G.P.A.'s in the middle 46 percent or lower 29 percent of their class. This absence of significant variation may indicate that the amount of time spent studying is far less critical than the method of studying.

LEARNING SUPPORT SERVICES

The University offers a variety of learning support programs, including academic advising, career counseling, and learning assistance services. In several Survey questions we attempted to discover the areas in which students needed assistance, the accessibility of that assistance, and the degree of student satisfaction with the assistance offered.

Student respondents were first asked if they needed help in clarifying their educational goals. Less than half of the seniors and graduate students surveyed reported needing such help, but 50 percent of the juniors, 63 percent of the sophomores, and 66 percent of the freshmen noted that such help was needed. Students were further asked to indicate whether they needed help in selecting a major. Less than 20 percent of the seniors and graduate students needed such help, while 41 percent of the juniors, 52 percent of the sophomores, and 41 percent of the freshmen reported that such assistance was needed. When asked if they needed help in planning a major program, a majority of seniors and graduate students responded that they did not, but more than half of the juniors (55%), sophomores (56%), and freshmen (58%) expressed the need for help in this area. A majority of the respondents enrolled in Agricultural Sciences, Applied Economic and Behavioral Sciences, Engineering, Food and Consumer Sciences, and Physical Sciences and Math indicated a need for help in planning their major programs. Responses to these questions indicate that a significant number of students feel the need for help in the area of advising and counseling, especially those students in the early stages of their undergraduate education.

Students were asked to rate the accessibility of assistance in clarifying their educational goals, selecting a major, and planning a major program. In all of these cases, a majority of the students reported that assistance was readily accessible. When asked about their satisfaction with advising in their major department, however, student responses were not as uniformly favorable. A majority of the students enrolled in Physical Sciences and Math (85%), Agricultural Sciences (81%), and Engineering (68%) were especially

satisfied with the advising in their major department. Among those expressing dissatisfaction in this regard, a majority were students enrolled in the Social and Behavioral Sciences (57%) and in the Biological Sciences (53%).

Another question asked students about the accessibility of assistance in making career decisions. Sixty percent of the undergraduates and 82 percent of the graduate students did not find this to be a problem. When asked about their satisfaction with career counseling in their field, a majority of the students in Food and Consumer Sciences (78%), Agricultural Sciences (75%), Engineering (66%), Applied Economic and Behavioral Sciences (58%), and Physical Sciences and Math (53%) expressed varying degrees of satisfaction. On the other hand, a majority of the students in Fine Arts (77%), Social and Behavioral Sciences (53%), and Biological Sciences (51%) registered their dissatisfaction with career counseling in their major field.

In general, student respondents seem to think that advising and counseling assistance is readily accessible and that most major departments, despite some notable exceptions, provide satisfactory advising and counseling for their students.

When asked about their need for learning assistance services designed to provide tutoring for those having difficulty with specific fields of study, 78 percent of the undergraduate respondents and 93 percent of the graduate student respondents indicated that they did not require any special assistance. The availability of tutoring assistance was viewed as adequate, with 55 percent of the undergraduates and 82 percent of the graduate students indicating their satisfaction. Some students, however, were less than satisfied with

the availability of tutorial help. For example, more than one-half of the students majoring in Agricultural Sciences, Food and Consumer Sciences, and Social and Behavioral Sciences registered their dissatisfaction with the availability of such assistance.

In addition to specific tutorial assistance programs, there are other programs designed to help students in academic difficulty. When asked about the likelihood of consulting a specialist for the improvement of reading, writing, or study skills, a majority of the respondents stated that they would probably not make use of this service. However, when asked if they would employ audio-visual self-help materials to overcome specific academic problems, a majority said they would. These findings seem to indicate that Davis students prefer helping themselves when experiencing academic difficulty, rather than requesting assistance from others.

GRADES AND GRADING PROCEDURES

The time and effort which students devote to class activity and academic preparation should ultimately result in some degree of learning. Grades compose a less important by-product of this process, although judging from the amount of time spent discussing, re-discussing, and just simply cussing them, one might begin to believe that grades were of paramount importance. The reason for this seemingly infinite preoccupation is far from abstruse. While people generally agree on the value and importance of learning, it is nearly impossible for them to reach a similar consensus about grades. Not only are the advantages and disadvantages of various grading systems and procedures open to discussion, but the common assumptions about the meaning of grades and

their usefulness in indicating how much a student has learned may also provoke heated debate.

Several Survey questions were included for the purpose of clarifying this issue of grades and grading procedures. Students were asked to respond to questions dealing with the meaning of grades, the function of grades in the learning process, and various types of grading systems, in addition to questions about the concomitant problems of competition and cheating.

Only 33 percent of the respondents agreed with the statement "grades serve as a 'feedback' to me, telling me if I have learned the material". Among the different majors there was some variation, however, with half of the students in Agricultural Science (54%), Engineering (50%), and Food and Consumer Science (50%) agreeing that grades do serve this function. In a related question students were asked if the grading system at Davis reflects the student's actual knowledge and understanding of the subjects studied. Seventy-eight percent of the respondents agreed that this was not the case.

Eighty-four percent of the respondents agreed that grades restricted study to material likely to be on the test. When asked if tests were primarily factual in content, a majority of the respondents (78%) agreed. These responses seem to indicate that a majority of the student respondents feel that grades are based on factual knowledge, despite contrary assurances that grades measure more than a student's ability to memorize facts.

Students were asked to respond to the statement "students would learn just as much if no grades were given." A majority of the respondents (56%) disagreed with this statement. Some variation in response occurs within majors, however, with over half of the students enrolled in Fine Arts (62%), Letters (56%), and Resource Science (55%) agreeing with the statement. Unlike

students who plan to obtain a bachelor's, master's, doctorate, or law degree, the majority of respondents (56%) who plan to obtain a teaching credential feel that students would learn as much if no grades were given. Among students with various G.P.A.'s, a majority of those with G.P.A.'s in the lowest 29 percent of their class agreed with the statement, while those in the middle 46 percent and upper 25 percent disagreed. In general, a slight majority of the respondents feel that they learn more when grades are given, although they do not think grades measure student learning or knowledge and understanding of the subjects studied.

Students were also questioned about their preferences for specific grading systems. The possible Survey responses were ABCDF, Pass/Fail, Written Evaluation by Instructor, No Grades Whatsoever, and Other. Responses were quite varied, with 28 percent of the respondents preferring ABCDF grading, 27 percent preferring Pass/Fail, 23 percent preferring some other system, and 3 percent preferring No Grades Whatsoever. There was little consensus found in any group, but a majority of the students enrolled in Physical Sciences and Math (80%), Engineering (65%), and Agricultural Sciences (56%) preferred the ABCDF system of grading.

Two issues closely related to grades are competition and cheating. According to a majority (60%) of the undergraduate respondents to the Davis Student Survey, academic competition is the most serious problem on the Davis campus, although it is seen with varying degrees of severity. For example, a greater percentage of students enrolled in the Biological Sciences (68%) and in Physical Sciences and Math (64%), as compared with students in other disciplines, feel that competition is a serious problem. Undergraduate

women viewed competition as a more serious problem than their male counterparts did; likewise, juniors perceived the problem as serious more often than did students with other class standings. As might be expected, a majority of students with G.P.A.'s in the top 25 percent of their class found competition to be either a minor problem or no problem at all.

The increased concern with academic competition has been accompanied by an increased concern with cheating on campus. When asked about the relationship between grades and cheating, 91 percent of the respondents agreed that emphasis on grades is a major factor in encouraging cheating.

In general, students seem to have ambivalent feelings about grades. While a majority of the respondents do not think that grades accurately measure learning or actual knowledge and understanding of the subjects studied, they do agree that they would not learn as much if no grades were given. While they agree that competition is a serious problem, that grades restrict study to material likely to be on a test, and that emphasis on grades encourages cheating, a majority of the respondents prefer some form of grading to no grades at all. Far from elucidating the issue, the varied nature of the information gained from student responses seems to assure that discussion about grades and grading procedures will continue.

CONCLUSION

A detailed summary of student opinions about the academic environment at UCD would be not only lengthy, but probably of little value. It might be helpful, however, to point out those areas of the academic environment which a large percentage of students found to be especially satisfactory and, conversely, those areas which evoked a high degree of dissatisfaction.

Students seem satisfied with most aspects of their class experience, including class activity and relationships with instructors. General course content, contact with faculty members, quality of classes taught by T.A.'s, freedom in choosing classes, and opportunities for independent study were areas of satisfaction for most respondents. Two areas of general dissatisfaction were class size and the opportunity for practical application of classroom learning.

Students registered their satisfaction with the campus study facilities and with the accessibility of learning support services on campus. Student satisfaction with the quality of assistance varied, however, depending on the major department which offered the assistance.

The area of greatest ambiguity was the area of grades and grading procedures. Clearly, the respondents viewed competition as the most serious campus problem. Student feeling on other grade-related issues was not quite as clear. Generally, one can say that a large majority of respondents seemed to prefer some kind of grading system, although judging from their responses to other questions about grades, it is difficult to discover why.

It appears, then, that despite some variability in responses, students are generally satisfied with most aspects of the academic environment at UCD. Lest we become overly optimistic, it should be noted that it is often difficult for students to evaluate the quality of their academic experience while they are still in the midst of experiencing it. It would be useful to obtain information from students who have already graduated to discover whether their perceptions of the academic environment at UCD correspond to those of the students currently enrolled.

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APPENDIX I

List of Majors by General Area

Agricultural Sciences

Agricultural Chemistry
Agricultural Science & Management
Animal Science
Entomology
Horticulture
International Ag. Development
Plant Pathology
Plant Physiology
Plant Science

Other Agricultural Sciences:

Agrarian Studies, Agric. Genetics,
Agronomy, Avian Sci., Crop Pro-
tection, Irrigation, Veg. Crops

Applied Econ. and Behavioral Sciences

Agricultural Economics
Agricultural Econ. & Business Mgt.
Applied Behavioral Sciences
Child Development
Design
Development, Resource, & Consumer
Economics

Biological Sciences

Bacteriology
Biochemistry
Biological Sciences
Biophysics
Botany
Genetics
Microbiology
Physiology
Zoology

Clinical Sciences

Comparative Pathology
Other Clinical Sciences: Anatomy,
Comparative Pharmacology and Toxi-
cology, Endocrinology

Education

Agricultural Education
Education & Teaching Credential Program
Physical Education

Engineering

Aerospace Engineering
Agricultural Engineering
Chemical Engineering
Civil Engineering
Electrical Engineering
Engineering (specialization not
specified)
Mechanical Engineering

Fine Arts

Art, Art History, and Art Studio
Dramatic Art
Music

Food and Consumer Sciences

Consumer Food Science
Dietetics
Fermentation Science
Food Science
Home Science
Nutrition
Nutrition Science
Textiles
Other Food & Consumer Sciences:
Community Nutrition, Food Biochem.,
Food Service Mgt., Consumer Sci.

Letters

English
French
German
Linguistics
Philosophy
Rhetoric
Spanish
Other Letters: American History &
Literature, Classics, Greek, Ita-
lian, Latin, Liberal Arts, Oriental
Languages, Russian, Russian Liter-
ature and History

Law

Law

APPENDIX I (cont.)

Medicine

Family Health Practitioning
Medicine

Physical Sciences and Mathematics

Chemistry
Geology
Mathematics
Physics
Physical Sciences

Resource Sciences

Atmospheric Science
Ecology
Environmental Planning & Mgt.
Renewable Natural Resources
Soil and Water Science
Soil Science
Wildlife & Fisheries Biology
Other Resource Sciences: Park and
Recreation Administration, Range
Mgt., Range Science

Social and Behavioral Sciences

Anthropology
American Studies
Economics
Geography
History
International Relations
Political Science
Psychology
Sociology
Other Social & Behavioral Sciences:
Afro-American Studies, East Asian
Studies, Religious Studies

Veterinary Medicine

Veterinary Medicine

Pre-Professional Programs

Pre-Law
Pre-Medicine
Pre-Veterinary Medicine

Miscellaneous Categories

Exploratory (College of Agricultural & Environmental Sciences)
Undeclared (College of Letters and
Science)
Uncertain